# NEW GENERA AND NEW SPECIES OF NEOTROPICAL COREIDAE (HEMIPTERA: HETEROPTERA) 

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#### Abstract

Two new genera and three new species of Coreidae, collected in Brazil, Ecuador and Peruare described and included in the tribes Anisoscelidini, Leptoscelidini and Nematopodini. Dorsal view illustrations of each species are provided.


Key Words. - Insecta, Hemiptera, Heteroptera, Coreidae, Anisoscelidini, Leptoscelidini, Nematopodini, Brazil, Ecuador, Peru

Two new genera and three new species of Neotropical Coreidae are new and described here. The two genera have the posterior tibiae dilated and belong to the tribes Anisoscelidini and Nematopodini and the third taxon is in the tribe Leptoscelidini. The latter is the third known species of the genus Malvanaioides, which is characterized by metallic iridescens on the body, as well as its moderately expanded humeral angles, which are subacuminate and elevated above the disc. Because this group of coreids are never abundantly present in collections, their distributional data are limited and it is hoped more material will be collected.

## Tovarocoris Brailovsky, NEW GENUS

Type Species. - Tovarocoris ecnomiscos Brailovsky, NEW SPECIES


#### Abstract

Description. - Body large, broad, stout, somewhat depressed. Head subquadrate, wider than long; postocular tubercle forming contiguous curve with eyes; antenniferous tubercle broad, unarmed, widely separated; tylus projecting anteriorly of antennifers, globose and conspicuously more elevated than jugum; antennae long, slender and segments I to III terete (IV missing); antennal segment I stouter, slightly curved, longer than II; segment II longer than III; rostrum short, just passing anterior coxae. Pronotum: Trapeziform, wider than long, very declivent; collar wide; callarregion distinct, all margins with small tubercles; anterior margin slightly rounded; frontal angles obtuse; anterolateral margin markedly nodulose and obliquely straight; humeral angles rounded, not exposed; posterolateral margin sinuate and smooth; posterior margin smooth, slightly concave, with posterior angles rounded; surface densely punctate and transversely striate. Anterior lobe of metathoracic peritreme reniform, posterior lobe sharp, small. Mesosternum lacking median longitudinal groove. Legs: Anterior femora slightly incrassate, dorsal surface smooth, ventrally armed with 2 rows of spines; intermediate femora slightly incrassate, dorsal surface with some tubercles, ventrally armed with 2 rows of spines; posterior femora markedly incrassate, dorsal surface conspicuously tuberculate, ventrally armed with 2 rows of spines; anterior and intermediate tibiae, unarmed, sulcate, external margin carinate; posterior tibiae with outer dilations barely phylliform with 1 shallow emargination, occupying $0.65 \times$ length of posterior tibiae and about $2 \times$ width of inner dilations; inner dilations slightly phylliform and same size as outer dilations. Scutellum: Triangular, wider than long and transversely striate. Hemelytra: Macropterous, reaching anterior one-third of the last abdominal segment. Abdomen: Broad, widest point at segments IV-V; posterior angles angulate or with a short sharp spine; spiracles relatively transverse much closer to anterior than lateral margins of the segment; plica on seventh sternite straight.

Male.—Unknown.


Diagnosis. - This new taxa will not run to any known genus in the key to Nematopodini (O'Shea 1980, Brailovsky 1987). The only genera with the posterior
tibiae dilated both internally and externally are Thasus Stàl, Melucha Amyot \& Serville, Meluchamixia Brailovsky, and Vivianadema Brailovsky. In Thasus and Meluchamixia, the antennal segment III is markedly dilated, in Vivianadema it is slightly dilated, in Melucha it is sometimes very slightly dilated, and in Tovarocoris NEW GENUS, it is always terete. The outer and inner dilations of the posterior tibiae of Melucha are always lanceolate and occupying the total length of tibiae [in M. phyllocnemis (Burmeister) they occupy almost $80 \%$ of the length]. In Tovarocoris, the outer and inner dilations are phylliform, with one shallow emargination, and both occupy $65 \%$ of the length of posterior tibiae.

Distribution. - Only known from Brazil.
Etymology. - This genus is named for Dr. Juan Jose Tovar, and coris, bug: Masculine.

Material Examined.-Tovarocoris ecnomiscos.

# Tovarocoris ecnomiscos, Brailovsky, NEW SPECIES (Fig. 1) 

Type. - Holotype, female; data: BRAZIL. Para, $480 \mathrm{~km}(330 \mathrm{mi})$, S of Belem, 1971, D.P. Mills. Deposited in The Natural History Museum, London.

Description. - Female (holotype). Coloration: Bright orange to bright pale orange-yellow with following areas black: apex of rostral segment IV, upper margins of connexival segments II-IX, small discoidal spot on middle of apical margin of corium, spines and tubercles of each leg, external margin of coxae, a diffuse patch in meso and meta- acetabulae and on metasternum and few discoidal spots on abdominal sternites II to VII; hemelytral membrane ambarine translucid, with veins slightly darker. Measurements: Head length: 1.78 mm ; width across eyes: 2.58 mm ; interocular space: 1.59 mm ; interocellar space: 0.80 mm ; preocular distance: 1.25 mm . Length antennal segments: I, 3.26 mm ; II, 2.66 mm ; III, 2.12 mm ; IV, missing. Pronotal length: 4.94 mm ; width across frontal angles: 2.50 mm ; width across humeral angles: 5.26 mm . Posterior tibiae: length: 7.60 mm ; length outer dilation: 5.01 mm ; length inner dilation: 5.01 mm ; width outer dilation: 2.12 mm ; width inner dilation: 0.76 mm . Scutellar length: 2.66 mm ; width: 3.26 mm . Total body length: 24.40 mm .

Diagnosis. - Tovarocoris ecnomiscos is the only species in its genus.
Etymology. - From the Greek ecnomios, unusual, referring to the posterior tibiae.

Material Examined.-See Type.

## Onoremia Brailovsky, NEW GENUS

Type Species.-Onoremia acuminata Brailovsky, NEW SPECIES.
Description. - Body large, slender. Head pentagonal, porrect, wider than long, well prolonged anterior to antenniferous tubercle and with well developed neck; antenniferous tubercle broad, unarmed, widely separated; tylus basally nearly flat, unarmed, apically truncate on a wide triangular plate extending anterior to jugae and more raised when viewed laterally; jugae unarmed, thickened; tylus and jugae below level of antenniferous tubercles; antennae long, slender, segments I to IV terete; antennal segment I more than $2 \times$ as long as head, slightly curved and shorter than IV; segment II longest; segment III shortest, stouter; postocular tubercle forming contiguous curve with eyes; buccula not extending beyond level of antenniferous tubercle; rostrum reaching anterior one-third of abdominal sternite III; rostral segment I longest, segment III shortest, II longer than IV; rostral segment I reaching anterior margin of prosternum. Pronotum: Trapeziform, wider than long, declivent; collar wide; all margins entire; calli slightly elevated; area between calli with 2 large tubercles; anterolateral margins obliquely straight; posterolateral margins sinuate; posterior margin straight; frontal angles obtuse; humeral areas slightly expanded, with humeral angles acuminate; surface densely punctate and transversely striate. Anterior


Figure 1. Dorsal view of Tovarocoris ecnomiscos Brailovsky NEW SPECIES.

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Figure 2. Dorsal view of Onoremia acuminata Brailovsky NEW SPECIES.
lobe of metathoracic peritreme reniform, posterior lobe sharp, small. Mesosternum with median longitudinal groove. Legs: Femora with dorsal surface smooth, ventrally armed with 2 subdistal spines and 1 row of small tubercles or spines; anterior and intermediate tibiae unarmed, sulcate; posterior tibiae with outer dilation lanceolate, occupying $0.51-0.52 \times$ length of posterior tibiae, slightly wider


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Figures 3-6. Figures 3-5. Posterior tibiae. Figure 3. Anisoscelis scutellaris Stål. Figure 4. Bitta gradadia (Distant). Figure 5. Onoremia acuminata Brailovsky NEW SPECIES. Figure 6. Caudal view of the male genital capsule of Onoremia acuminata Brailovsky NEW SPECIES.
than inner dilation; inner dilation lanceolate, almost same size as outer dilation (Fig. 5). Scutellum: Triangular, flat, longer than wide, transversely striate, with apex acute. Hemelytra: Macropterous, extending beyond apex of abdomen. Male genitalia. Genital capsule. Median notch shallow, dorsal prongs low forming a convex posterior margin; lateral angles rounded (Fig. 6).

Female Genitalia. - Abdominal sternite VII with plica and fissura.
Diagnosis.-Onoremia is a unique genus and easily to identify. The length of the antennal segment $I$ is more than twice as long as the head. In addition, the pronotum, scutellum, clavus, corium and abdominal segments have metallic iridescens; the posterior tibiae has its outer and inner dilation lanceolate and not
reaching the apex of tibiae; and the ventral ridge of genital capsule has a shallow median notch (Figs. 5-6). Also, the area between calli has two large tubercles, which are absent in Anisoscelis and Bitta. See Key.

Discussion.-Osuna (1984) produced a generic revision of the tribe Anisoscelidini, and recognized 14 genera, which are included in three clearly defined groups of genera: the Diactor group, with the single genus, Diactor Perty; the Leptoglossus group, including seven genera: Leptoglossus Guerin-Meneville, Narnia Stal, Nannophyllia Bergroth, Fabrictilis Osuna, Theognis Stål, Stalifera Osuna and Veneza Osuna; the Anisoscelis group, consisting of six genera: Anisoscelis Latreille, Baldus Stål, Bitta Osuna, Chondrocera Laporte, Holhymenia Le Peletier and Serville and Tarpeius Stål. Unfortunately in this revision, Osuna only mentioned the number of species in each genus, but did not list which species belong to each genus.

Onoremia NEW GENUS, is included on the Anisoscelis group, close to Anisoscelis and Bitta. In each genus, the outer and inner portion of posterior tibiae are dilated, the antennal segment IV is not yellow-white, all antennal segments are terete, the tylus and jugae are below the level of antenniferous tubercles, and the anterolateral margins of the pronotum are straight or obliquely straight.

In Holhymenia, Baldus and Tarpeius the tibial dilation are restricted to the outer surface, are usually narrow and extend over almost the whole length of tibiae; also, the antennal segment IV is yellow-white. In Chondrocera, antennal segments II and III usually have flat lateral expansions, the tylus and jugae are above the level of antenniferous tubercles, and the anterolateral margins of pronotum are slightly curved.

Anisoscelis, which includes three species [discolor Stål, foliacea (Fabr.) and scutellaris Stål] and one subspecies [foliacea marginella (Dallas)], has the following traits: the length of antennal segment I is less than twice as long as the head; the pronotum, scutellum, clavus, corium and abdominal segments are usually partially metallic green, but occasionally metallic blue or purple (except in A. discolor and A. foliacea marginella in which it is pale brown to dark brown); the posterior tibiae has its outer dilation phyliform, extending over most of tibiae and tapering towards the apex (Fig. 3); and the ventral ridge of the genital capsule is V-shaped.

Bitta, which includes four species [affinis (Westwood), flavolineata (Blanchard), gradadia (Distant) and hymeniphera (Westwood)], has the following traits: the length of antennal segment $I$ is twice as long as the head; the pronotum, scutellum, clavus, corium and abdominal segments are without metallic iridescens and are usually yellow, orange or red; the posterior tibiae has its outer dilation phyliform and short, not reaching the apex of tibiae (Fig. 4); and the ventral ridge of genital capsule has a medial process.

Distribution. - Only known from Ecuador.
Etymology. - Named for Giovanni Onore; feminine.
Material Examined.-Onoremia acuminata.

## Key to Related Genera of Anisoscelidini (AFter Osuna, 1984)

1. Outer dilation of posterior tibiae lanceolate (Fig. 5); antennal segment I more than twice as long as head; area between calli with 2 large tubercles

Onoremia Brailovsky, NEW GENUS
$1^{\prime}$. Outer dilation of posterior tibiae phyliform (Figs. 3-4); antennal seg-
ment I twice as long as the head or less; area between calli smooth,
without tubercles . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 2
2(1'). Antennal segment I less than twice as long as the head; surface partially with green or blue metallic iridescens; outer dilation of posterior tibiae extending over most of tibiae and tapering towards the apex (Fig. 3)

Anisoscelis Latreille
$2^{\prime}$. Antennal segment I twice as long as the head; surface without metallic iridescens; outer dilation of posterior tibiae short, not reaching the apex of tibiae (Fig. 4)

Bitta Osuna

Onoremia acuminata, Brailovsky, NEW SPECIES

(Figs. 2, 5-6)
Types.-Holotype, male; data: ECUADOR. Napo (Tondaci), March 1991, G. Onore. Deposited in "Pontificia Universidad Catolica del Ecuador, Quito." Paratype: 1 female; data: ECUADOR. Baños, Tunguramua Cerro Runtun, 30 Aug 1988, V. Nuñez. Deposited in the "Colección Entomológica del Instituto de Biología, UNAM, México."

Description. - Male (holotype). Dorsal coloration: Head yellow with following areas metallic bluegreen: postocular region, ocellar tubercle and a longitudinal stripe that covers interocellar space, frons, basal one-third of tylus and apex of jugae; apical one-third of tylus yellow-hazel, with brown diffusse spot; antennal segment I yellow-ochre, with inner face metallic blue-green; segment II metallic bluepurple with anterior two-thirds of outer face yellow-ochre; segment III creamy yellow, with basal and apical joint brown; segment IV dark brown; pronotum, scutellum, clavus and corium bright black with punctures metallic blue-green and following areas red: lateral margins and apex of scutellum, claval and corial veins, and costal and apical margins of corium; hemelytral membrane dark brown; connexival segments III-VI metallic blue-green with upper margin red and segment VII bright orangeyellow with upper margin metallic blue-green; dorsal segments II to VI black with metallic blue-green iridescens and segment VII bright orange-yellow with anterior one-third and a central longitudinal stripe black with metallic blue-green iridescens. Ventral coloration: Head metallic blue-green-purple with incomplete central longitudinal stripe yellow; rostral segment I bright black with metallic bluegreen iridescens and segments II to IV bright black; thorax with prosternum and mesosternum bright orange, with broad central area black with metallic blue-green iridescens; metasternum bright orange; propleura, mesopleura and metapleura metallic blue-green-purple; metathoracic peritreme and adjacent areas bright orange. Legs: Anterior coxae bright black with metallic blue-green iridescens; middle and posterior coxae black with metallic blue-green iridescens and with posterior one-third yellow; trochanters, femora and tarsi yellow, with spines bright black; anterior and middle tibiae yellow, posterior tibiae yellow with outer and inner dilations bright brown-red. Abdomen: Bright orange, with posterior border of sternite V and VI yellow and following areas with metallic blue-green reflections: lateral and pleural margins of sterna III to VII, posterior margin of sternite VII and central area of genital capsule. Measurements: Head length: 2.20 mm ; width across eyes: 2.68 mm ; interocular space: 1.35 mm ; interocellar space: 0.54 mm ; preocular distance: 1.40 mm . Length antennal segments: I, 4.75 mm ; II, 6.85 mm ; III, 3.90 mm ; IV, 4.95 mm . Pronotal length: 3.40 mm ; width across frontal angles: 2.30 mm ; width across humeral angles: 5.70 mm . Posterior tibiae: length: 11.75 mm ; length outer dilation: 6.00 mm ; length inner dilation: 5.98 mm ; width outer dilation: 1.75 mm ; width inner dilation: 1.37 mm . Scutellar length: 2.45 mm ; width: 2.30 mm . Total body length: 20.60 mm .

Female (paratype).-Color: Similar to holotype. Connexival segments VIII and IX bright orangeyellow, with posterior angle black with metallic blue-green iridescens; dorsal segments VIII and IX bright orange-yellow with central longitudinal stripe black with metallic blue-green iridescens; gonocoxae I black with metallic blue-green iridescens; paratergite VIII and IX bright orange-yellow with posterior angle black with metallic blue-green iridescens. Measurements: Head length: 2.08 mm ; width across eyes: 2.50 mm ; interocular space: 1.27 mm ; interocellar space: 0.47 mm ; preocular distance:


Figure 7. Dorsal view of Malvanaioides luridus Brailovsky NEW SPECIES.
1.25 mm . Length antennal segments: I, 4.65 mm ; II, 6.70 mm ; III, 3.75 mm ; IV, 4.80 mm . Pronotal length: 3.05 mm ; width across frontal angles: 2.00 mm ; width across humeral angles: 4.90 mm . Posterior tibiae: length: 11.75 mm ; length outer dilation: 6.12 mm ; length inner dilation: 6.10 mm ; width outer dilation: 1.50 mm ; width inner dilation: 1.12 mm . Scutellar length: 2.04 mm ; width: 1.85 mm . Total body length: 18.15 mm .

Diagnosis.-Onoremia acuminata is the only species in its genus. Etymology. - Named for the elongate tubercles of the area between calli.

Material Examined.-See Types.

## Malvanaioides luridus, Brailovsky NEW SPECIES (Fig. 7)

Type. - Holotype, female; data: PERU, Chanchamayo (without information). Deposited in Hungarian Natural History Museum.

Description. - Female (holotype). Dorsal coloration: Head bright orange, with following areas metallic blue-green: ocellar tubercle and broad V-shaped spot that covers most of antenniferous tubercles; antennal segment I metallic blue-green with orange basal and apical joint; segment II brown-red with dark orange reflections; segment III with anterior one-half orange (basal joint brown-red) and posterior one-half entirely brown-red; segment IV brown-red; pronotum with anterior margin, callar region and anterior one-half of anterolateral margin metallic blue-green, and the rest, including scutellum, black with punctures metallic blue-purple and with a wide orange-yellow longitudinal stripe extending from lower one-third of callar region to apex of scutellum; clavus black with punctures metallic blue-purple and with anal and suture border orange; corium black with punctures metallic blue-purple, with longitudinal stripe orange-yellow, running along costal margin, reaching apex of apical margin, leaving only short black stripe close to the middle one-third of costal margin; hemelytral membrane pale brown; connexival segments metallic green; abdominal segments I-IV bright orange, segment V bright orange with posterior third black, segments VI and VII black with metallic blue reflections, segments VIII and IX black. Ventral coloration: Head bright orange; rostral segment I bright orange, internally with metallic green iridescens; segments II and III bright orange; segment IV bright orange with apex black; thorax metallic green, with sternal region bright orange; legs entirely bright orange; metathoracic peritreme and adjacent areas bright orange with apex of anterior and posterior lobe brown-red; abdominal sterna including the genital plates metallic green with following areas bright orange: short longitudinal stripe running across middle of sternite III, posterior border of sterna IV and V, and upper margin of pleural sterna II-VII. Structure.-Head: porrect; tylus blunt, slightly exceeding jugae; rostrum reaching anterior one-third of abdominal sternite III. Pronotum: Abruptly declivent; anterolateral and posterolateral margins dentate; posterior margin slightly concave, with lateral projections well developed; humeral angles moderately expanded, subacuminate and elevated above disc; calli barely elevated. Measurements: Head length: 2.50 mm ; width across eyes: 2.40 mm ; interocular space: 1.44 mm ; interocellar space: 0.64 mm ; preocular distance: 1.54 mm . Length antennal segments: I , 3.42 mm ; II, 4.25 mm ; III, 3.19 mm ; IV, 5.47 mm . Pronotal length: 3.26 mm ; width across frontal angles: 2.28 mm ; width across humeral angles: 6.60 mm . Scutellar length: 2.55 mm ; width: 2.80 mm . Total body length: 23.10 mm .

Diagnosis. -See Key.
Discussion. - Brailovsky (1990) described the genus Malvanaioides to include M. intricata from Brazil; M. flavolineata from Peru was described later, becoming the second known species (Brailovsky 1993). Here, a third species, collected in Peru, is described and the diagnostic characters which separate $M$. luridus new species from the other two known species are given in the key.

Distribution. - Only known from Peru.
Etymology. - Named for its light coloration of the legs; from the Latin, luridus, pale yellow.

Material Examined. -See type.

## Key to Species of Malvanaioides

1. Posterior one-half of pronotal disc black, with punctures metallic bluepurple and with wide orange longitudinal stripe; femora entirely bright orange; tylus bright orange; rostrum reaching anterior one-third of abdominal sternite III ............ M. luridus Brailovsky, new species.
$1^{\prime}$. Posterior one-half of pronotal disc entirely yellow; femora never orange or yellow; tylus metallic green; rostrum reaching abdominal sternite IV
2(1'). Clavus and corium black with transverse yellow fascia; coxae and trochanters bright brown red; thorax with pro-, meso-, and metapleura orange red, with some metallic blue-purple spots; jugum metallic green . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . M. flavolineata Brailovsky
$2^{\prime}$. Clavus and corium black with punctures metallic blue-purple, and with a longitudinal yellow stripe running along costal margin with the apex of apical margin leaving a short black stripe near the middle onethird of the corium; coxae and trochanters bright orange; thorax with pro-, meso-, and metapleura metallic green; jugum yellow
M. intricata Brailovsky

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## Literature Cited

Brailovsky, H. 1987. Three new genera and six new species of Neotropical Coreidae (Heteroptera). J. New York Entomol. Soc., 95: 518-530.

Brailovsky, H. 1990. Géneros nuevos y especies nuevas de coreidos neotropicales (Hemiptera-Heteroptera-Coreidae, Acanthocerini, Leptoscelidini y Anisoscelidini). Anales Inst. Biol. Univ. Nal. Autón. México Ser. Zool., 61: 107-123.
Brailovsky, H. 1993. Género nuevo y especies nuevas de coreidos neotropicales (Hemiptera-Het-eroptera-Coreidae: Acanthocerini, Chariesterini, Coreini, Discogastrini, Leptoscelidini y Nematopodini). Anales Inst. Biol. Univ. Nal. Autón México Ser. Zool., 64: 109-127.
O'Shea, R. 1980. A generic revision of the Nematopodini (Heteroptera: Coreidae: Coreinae). Stud. Neotropical Fauna Envir., 15: 197-225.
Osuna, E. 1984. Monografia de la Tribu Anisoscelidini (Hemiptera, Heteroptera, Coreidae) I. Revisión Genérica. Bol. Ent. Venez. N.S., 3(5-8): 77-148.

